WHAT IS CLAIMED IS:

1. A medical device comprising:

a hollow body having a main portion and two ends, each end including atraumatic arms; and

a graft material attached to the body;

where the body is (i) expandable from a constrained position to an unconstrained position, (ii) the atraumatic arms of one end are outwardly oriented at an acute angle with respect to the main portion when the body is in the unconstrained position, and (iii) the graft material contacts one arm that is oriented at an acute angle.

2. The medical device of claim 1, where the atraumatic arms of the other end are outwardly oriented at no greater than 90 degrees with respect to the main portion when the body is in the unconstrained position.

3. The medical device of claim 1, where the atraumatic arms of both ends are outwardly oriented at an acute angle with respect to the main portion when the body is in the unconstrained position.

4. The medical device of claim 1, where the body includes an inner surface and an outer surface, and the graft material covers the inner surface of the body, including the atraumatic arms of both ends.

5. The medical device of claim 4, where the graft material covers the inner and outer surfaces of the body, including the atraumatic arms of both ends.

6. The medical device of claim 1, where the body includes an inner surface and an outer surface, and the graft material covers the outer surface of the body, including the atraumatic arms of both ends.

7. The medical device of claim 1, where the graft material comprises polytetrafluoroethylene, polyethylene terephthalate, or polyester.

8. The medical device of claim 7, where the graft material comprises polytetrafluoroethylene.

9. The medical device of claim 1, where the body comprises a shape memory material.

10. The medical device of claim 1, where the body is self-expanding.

11. The medical device of claim 10, where the body comprises a tube into which openings have been cut.

12. The medical device of claim 1, where the atraumatic arms are loops.

13. The medical device of claim 1, further comprising a delivery device configured to deliver the body to a location within a patient.

14. A medical device comprising:

a self-expanding body made from shape memory material, the body having a main portion and two ends, each end including atraumatic arms; and

a graft material contacting one of the atraumatic arms;

where the body is expandable from a constrained position to an unconstrained position, and the atraumatic arms of both ends are outwardly oriented at an angle of no greater than 90 degrees with respect to the main portion when the body is in the unconstrained position.

15. The medical device of claim 14, where the graft material contacts all of the atraumatic arms.

16. The medical device of claim 14, where the atraumatic arms of both ends are outwardly oriented at an acute angle with respect to the main portion when the body is in the unconstrained position.

17. The medical device of claim 14, where the body comprises a tube into which openings have been cut.

18. A method for creating an anastamosis between two structures, comprising:

creating an opening in a first structure with an interior;

creating an opening in a second structure with an interior; and

positioning the medical device of one of claims 1-12 and 14-17 within the openings such that the atraumatic arms of one end are located within the interior of the first structure and the atraumatic arms of the other end are located within the interior of the second structure.

19. The method of claim 18, where the anastamosis is a side-to-side anastamosis between the inferior vena cava and the main portal vein.

20. The method of claim 18, where ultrasound is used during the positioning.

21. The method of claim 18, where the creation of the openings in the first and second structures includes the use of a needle and a wire.

22. The method of claim 18, where a catheter is used during the positioning.

23. The method of claim 18, where the structures each have an inner surface, and the positioning results in the atraumatic arms of one end contacting the inner surface of the first structure and the atraumatic arms of the other end contacting the inner surface of the second structure, and where the atraumatic arms draw the two structures closer together than they were prior to the positioning.